Important Details on muscles

Guide to this document: Most of these notes represent information that I had forgotten and are about innervations, actions, etc. so they will probably be useless to you. There are a couple of tidbits in here that you may find interesting and I have tried to highlight them in blue (the blue bullet points are unimportant). Please e-mail me if you find any errors. Enjoy!

* Nuchal Ligament is important. Hankin mentioned a number times that people “always miss this” I gotta feelin’ that it’s going to be tagged
* There are 2 sets of spinalis muscles on each side of the spine
* Intrinsic back muscles in general: unilaterally (each muscle) performs lateral flexion, bilaterally they extend the back
* Lower intercostals muscles attach to the ribs, the upper intercostals attach to transverse processes. Don’t be too concerned with specific attachment points for the intrinsic back muscle.
* During lateral flexion, muscles act on opposite side to flexion. So left intrinsic back muscles will help you lean to the right.
* Make sure you understand which level of dorsal roots innervate specific intrinsic back muscles. (eg. If illiocostalis is tagged, know the general location of the vertebral body adjacent to it)
* Dorsal rami innervate the skin of the back and is bounded by the angle of the ribs, ventral rami innervate the rest of the skin of the trunk
* Dorsal and ventral rootlets come out of conus medularis. Be able to identify dorsal and ventral rootlets.
* Nerves receive the classification as spinal nerves only after they leave the intervertebral foramen.
* The dural sac ends at S2 and S3. The sac becomes intimate with pia mater after S2. Pia mater is only 2 layers after S2. Filum terminale is still withinpart of the dural sac when it ends at the coccyx.
* The trapezius and levator scapulae elevate the the scapula, innervated by the accessory nerve CN XI. Superior fibers Elevate trapezius, middle retracts trapezius, Inferior fibers depress trapezius
* Serratus anterior holds scapula in place and is therefore involved in the winging of the scapula
* Dorsal scapular vein, artery, nerve all supply levator scapulae, rhomboid and serratus anterior
* Supraspinatus muscle abducts the arm, it is responsible for the first 30 degrees of arm elevation.
* Suptrascapular nerve innervates both infraspinatus and supraspinatus. The artery and vein forms “Army/Navy” (the artery goes above the superior transverse scapular ligament
* Latissimus dorsi adducts and medially rotates the arm. (Hankin used this muscle as a clinical example: What movements would be affected if the function of this muscle was diminished? Wall climbing)
* Pectoral minor and coracobrachialis attach to the coracoids process.
* Ulnar, Median and musculocutaneous nerves form the “M” of the brachial plexus
* Lateral cutaneous nerve is the continuation of the musculucutaneous. When searching for it, find the musculocutaneous nerve, then look for the branch that does not go to a muscle, that is lateral cutaneous
* Pectoralis minor muscle splits the axilary artery into its 3 parts. This is important for finding the branches off the axilarry artery. The first part of the artery is superior to the pec minor muscle, the second part is deep to pec minor and the third part is inferior to pec minor
* Lat dorsi is innervated by the thoracodorsal artery and nerve
* Good way to differentiate large arteries from large nerve. Arteries look darker and have “rings” around them. Nerves are shinier (because of the myelin sheath)
* The lateral thoracic nerve is usually “stuck” onto the serratus anterior muscle.
* The quadrangular space is found by looking at the anterior aspect of the body, the triangular space is found by looking at the posterior aspect.
* Radial groove is located on shaft of humerus, the radial nerve and deep brachial artery run through it
* Subclavian artery and vein turn into axilary artery and vein at the lateral border of rib 1
* The most important radial nerve branch is the posterior interosseus nerve
* Superficial branch of the radial nerve goes to the dorsal hand, it is ONLY a sensory nerve. The deep radial nerve supplies the supinator muscle and becomes the deep radial nerve once it crosses the supinator muscle
* The carpal tunnel consists of 9 muscles and 1 nerve. There are the 4 digitorum superficialis tendons, 4 digitorum profundus tendons, tendon of flexor policis longus and the median nerve.
* Anterior and posterior interosseus arteries come off the ulnar artery. The posterior branch is smaller, therefore, the anterior interosseus loops around the distal hole in the interosseus membrane